

Notice of Allowability

Application No.

10/014,317

Examiner

Kandasamy Thangavelu

Applicant(s)

ABU EL ATA, NABIL A.

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to October 5, 2005.
2. ☒ The allowed claim(s) is/are 1-46.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>Clean copy of allowed claims.</u> |

DETAILED ACTION

Introduction

1. This communication is in response to the Applicants' communication dated October 5, 2005. Claims 1, 18-24 and 41-46 were amended. Claims 1-46 of the application are pending.

Examiner's Amendment

2. Authorization for this examiner's amendment was given in a telephone conversation by Ms. Mary Lou Wakimura on November 30, 2005.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

3 In the claims:

Replace Claim 1 with:

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1. A computer-implemented method for improved predictive modeling of a proposed information system, the information system including system architecture, one or more software applications, system hardware and networking components, the method comprising:

providing a description of a business solution comprising business components and interactions among the business components;

generating a predictive model of the proposed information system comprising a business layer generated from the business solution description; and

modeling dynamic characteristics and behavior of the business components and the interactions among the business components using the business layer in response to dynamic business workloads, such that a dynamic representation of the business solution results.

In claim 18, Lines 1-5:

“A computer-implemented method for improving the accuracy of a predictive model of an information system, comprising:

- (a) generating a predictive model of an information system comprising a business layer, an application layer, and a system layer, each layer modeling dynamic characteristics and behavior of one or more components;”

has been changed to

-- A computer-implemented method for improving the accuracy of a predictive model of a proposed information system, the information system including system architecture, one or more software applications, system hardware and networking components, the method comprising:

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(a) generating a predictive model of the proposed information system comprising a business layer, an application layer, and a system layer, each layer modeling dynamic characteristics and behavior of one or more components;--

Replace Claim 24 with:

24. A system for improving predictive modeling of a proposed information system, the information system including system architecture, one or more software applications, system hardware and networking components, the system comprising:

a computer with:

a processor to execute a program of instructions stored in the memory of the computer;

a memory to store a program of instructions for predictive modeling of the proposed information system;

an input module providing a description of a business solution to a construction module, the description of the business solution comprising business components and interactions among the business components;

the construction module generating a predictive model of the proposed information system comprising a business layer generated from the business solution description; and

the construction module modeling dynamic characteristics and behavior of the business components and the interactions among the business components using the business layer in response to dynamic business workloads, such that a dynamic representation of the business solution results.

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In claim 41, Lines 1-10:

“A system for improving the accuracy of a predictive model of an information system,
comprising:

a computer with:

a processor to execute a program of instructions stored in the memory of the computer;

a memory to store a program of instructions for improving accuracy of a predictive model
of an information system;

a construction module generating a predictive model of an information system
comprising a business layer, an application layer, and a system layer, each layer modeling
dynamic characteristics and behavior of one or more components;”

has been changed to

-- A system for improving the accuracy of a predictive model of a proposed information
system, the information system including system architecture, one or more software applications,
system hardware and networking components, the system comprising:

a computer with:

a processor to execute a program of instructions stored in the memory of the computer;

a memory to store a program of instructions for improving accuracy of the predictive
model of the proposed information system;

a construction module generating the predictive model of the proposed information
system comprising a business layer, an application layer, and a system layer, each layer
modeling dynamic characteristics and behavior of one or more components;--

A clean copy of the allowed claims is attached.

Reasons for Allowance

4. Claims 1-46 of the application are allowed over prior art of record.
5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The closest prior art of record shows:

(1) a computerized design system for designing information systems; the method uses a series of phases involving requirements specifications, preliminary design, detailed design, prototype development, prototype testing and implementation of final prototype in delivery environment; the method produces structured specifications using a layered approach; the method uses a design engine for developing conceptual design and detailed design and producing a prototype; the design phases are followed by structured verification and validation; the prototype is revised in a number of cycles; (**Peterson et al.**, U.S. patent 6,327,551);

(2) a performance modeling tool and method permitting the user to define the elements of a distributed system (hosts, networks and response times) and examine the effects on the performance of different distributions of application processes over the system; the user can obtain performance projections for an application process over different distributions of the performance workload; application program design uses performance specification, performance modeling and analysis; performance modeling and analysis identify the features that constrain

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the performance by representing them in a predictive model; the resource demands of each process in the system such as processor time requirements and requests for services from other processes are quantified and used to define the model; the performance measures predicted include process throughput and response times, process utilizations, device utilizations etc.; a change in model parameters permits the prediction of system performance under modified conditions; the method allows the user to specify hardware configuration; the user can view the hardware configuration and distribution of software components amongst the hardware configuration; the user can modify the hardware configuration; the method of layers is used to obtain the performance estimates of the distributed systems; that method uses one model for software contention and prediction of software contention delays; another model predicts queuing delays at hardware devices; the method combines the results to provide performance estimates for the system under study; the method assists the user to design an optimal distributed program based on performance characteristics of a selected network; the method provides a tool to be used at the earliest stages of application design for the client server environment, to determine an optimal distribution of processes prior to generating program code (**McDonald et al.**, U.S. Patent 5,881,268); and

(3) a system and method for determining a workload placed on target computer system during execution of a specified computer program; the system receives a set of performance measurements representing the performance of the target computer system during execution of the specified computer program; the system then identifies a plurality of workloads and for each identified workload, uses a model of the target computer system to predict the performance measurements that would result when the identified workload placed on the target computer

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system is executed; the system selects the identified workload whose predicted performance measurements closely matches the received set of performance measurements, as the determined workload; the system uses the selected workload to predict the performance of the specified computer program on the target system with various different configurations; a appropriate model and an accurate workload can be used to identify bottleneck resources having highest utilization; the method generates modifications to a system resource of a target computer system that would result in improved performance during execution of the specified computer program (**Blake et al.**, U.S. Patent 6,067,412).

None of these references taken either alone or in combination with the prior art of record discloses a computer-implemented method for improved predictive modeling of a proposed information system, the information system including system architecture, one or more software applications, system hardware and networking components, specifically including:

“generating a predictive model of the proposed information system comprising a business layer generated from the business solution description; and

modeling dynamic characteristics and behavior of the business components and the interactions among the business components using the business layer in response to dynamic business workloads, such that a dynamic representation of the business solution results”.

None of these references taken either alone or in combination with the prior art of record discloses a computer-implemented method for improving the accuracy of a predictive model of a

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proposed information system, the information system including system architecture, one or more software applications, system hardware and networking components, specifically including:

“generating a predictive model of the proposed information system comprising a business layer, an application layer, and a system layer, each layer modeling dynamic characteristics and behavior of one or more components; and

performing a sensitivity analysis on individual component models that do not substantially match a corresponding performance benchmark, said performing a sensitivity analysis providing assessment of accuracy of the predictive model in a manner enabling improvement of accuracy of the predictive model”.

None of these references taken either alone or in combination with the prior art of record discloses a system for improving predictive modeling of a proposed information system, the information system including system architecture, one or more software applications, system hardware and networking components, specifically including:

“the construction module generating a predictive model of the proposed information system comprising a business layer generated from the business solution description; and

the construction module modeling dynamic characteristics and behavior of the business components and the interactions among the business components using the business layer in response to dynamic business workloads, such that a dynamic representation of the business solution results”.

None of these references taken either alone or in combination with the prior art of record discloses a system for improving the accuracy of a predictive model of a proposed information system, the information system including system architecture, one or more software applications, system hardware and networking components, specifically including:

“a construction module generating the predictive model of the proposed information system comprising a business layer, an application layer, and a system layer, each layer modeling dynamic characteristics and behavior of one or more components; and

the construction module performing a sensitivity analysis on individual component models that do not substantially match a corresponding performance benchmark, said sensitive analysis providing an assessment of accuracy of the predictive model in a manner enabling improvement of accuracy of the predictive model”.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.”

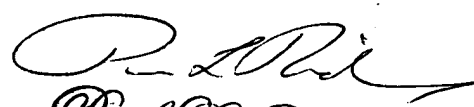
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

K. Thangavelu
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November 30, 2005

 12/6/05
Paul L. Rodriguez
Primary Examiner
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